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**BEFORE THE ARIZONA CORPORATION COMMISSION****COMMISSIONERS**

MIKE GLEASON - Chairman  
WILLIAM A. MUNDELL  
JEFF HATCH-MILLER  
KRISTIN K. MAYES  
GARY PIERCE

Arizona Corporation Commission

**DOCKETED**

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IN THE MATTER OF THE APPLICATION OF  
THE UNION PACIFIC RAILROAD COMPANY  
TO ALTER FOUR CROSSINGS OF THE UNION  
PACIFIC RAILROAD IN THE CITY OF CASA  
GRANDE AND IN PINAL COUNTY, ARIZONA  
AT MONTGOMERY, THORNTON,  
ANDERSON, AND ETHINGTON ROADS.

DOCKET NO. RR-03639A-07-0518

DECISION NO. **70648****OPINION AND ORDER**

DATE OF HEARING:

February 11, 2008 (Public Comment); March 12, 2008  
(Procedural Conference); August 14, 2008 (Hearing)

PLACE OF HEARING:

Phoenix, Arizona

ADMINISTRATIVE LAW JUDGE:

Marc E. Stern<sup>1</sup>

APPEARANCES:

Mr. Anthony J. Hancock, BEAUGUREAU,  
HANCOCK, STOLL & SCHWARTZ, P.C., on behalf  
of the Union Pacific Railroad Company;Mr. Brett D. Wallace, on behalf of the City of Casa  
Grande; andMr. Charles Hains, Staff Attorney, Legal Division, on  
behalf of the Safety Division of the Arizona Corporation  
Commission.**BY THE COMMISSION:**

On September 7, 2007, the Union Pacific Railroad Company ("Railroad") filed with the Arizona Corporation Commission ("Commission") an application for approval for the Railroad to alter four of its crossings in Pinal County ("County"), Arizona, by adding a second set of mainline tracks. Two of the crossings are located in the City of Casa Grande ("City") at Montgomery Road, AAR/DOT No. 741 353H, and at Thornton Road, AAR/DOT No. 741 358S. The third and fourth

<sup>1</sup> Administrative Law Judge Yvette Kinsey drafted the Recommended Opinion and Order on behalf of Administrative Law Judge Marc Stern.

1 crossings are located in the County at Anderson Road, AAR/DOT No. 741 351U, and Ethington  
2 Road, AAR/DOT No. 741 357K ("Application").

3 On October 24, 2007, the Commission's Safety Division's Railroad Safety Section ("Staff")  
4 and the Railroad participated in a teleconference to determine procedural matters and a date for the  
5 hearing.

6 On November 8, 2007, by Procedural Order, the hearing was scheduled for February 11,  
7 2008, and other procedural deadlines were established.

8 On November 19, 2007, by Revised Procedural Order, the date for the parties to file  
9 objections to the Staff Report was changed to January 14, 2008.

10 On December 13, 2007, Staff filed a Motion for Extension of Deadline UP Double Track  
11 Cases ("Motion"), stating that the complexities of the Application required Staff to retain a  
12 consultant, and Staff needed additional time to assess information related to the Application. Staff  
13 requested an indefinite extension of time to file a Staff Report, and stated Staff would file a request  
14 for a Procedural Order to set the hearing when Staff's assessment was completed.

15 On December 19, 2007, the Railroad filed a response to Staff's Motion opposing an extension  
16 of time for a period longer than 30 days.

17 On December 20, 2007, the Railroad filed a Certification of Notice stating that notice of the  
18 Application and hearing had been provided by certified mail to the City of Casa Grande's and Pinal  
19 County's Public Works Directors, and the Arizona Department of Transportation ("ADOT") Utilities  
20 & Railroad Engineering Section. The Railroad also published notice of the Application and hearing  
21 in the *Casa Grande Dispatch*, a daily newspaper of general circulation in the City of Casa Grande,  
22 and Pima County, on November 30, 2007, and in the *Florence Reminder and Blade-Tribune*, a  
23 weekly publication of general circulation in the City and County, on December 6, 13, and 20, 2007.

24 On December 21, 2007, Staff filed its Reply to the Railroad's response reiterating Staff's  
25 request for an indefinite extension of time to file the Staff Report in this matter.

26 On January 2, 2008, by Procedural Order, Staff was ordered to file Staff's proposed date for  
27 filing the Staff Report, and the February 11, 2008, hearing date was reserved for public comment  
28 only.

1 On January 11, 2008, the City of Casa Grande filed a Motion to Intervene in this proceeding.  
2 No objections were received in response to Casa Grande's request.

3 On January 15, 2008, Pinal County filed a letter in support of the Applicant's application.

4 On January 23, 2008, by Procedural Order, Casa Grande's Motion to Intervene was granted.

5 On the same date, Staff filed a Response to the January 2, 2008 Procedural Order, stating the  
6 Staff Report in the above-captioned docket would be filed by March 14, 2008.

7 On February 11, 2008, the hearing was convened for public comment only. The Railroad, the  
8 City of Casa Grande and Staff appeared through counsel. No members of the public appeared to give  
9 public comment, and the proceeding was recessed until the evidentiary hearing.

10 On February 14, 2008, Staff filed a Request for Procedural Conference to discuss potential  
11 hearing dates and related filing dates.

12 On March 4, 2008, by Procedural Order, a procedural conference was scheduled for March  
13 12, 2008.

14 On March 12, 2008, the procedural conference was held as scheduled. The Railroad, Staff  
15 and Casa Grande appeared through counsel. Staff indicated that the Staff Report in this matter would  
16 be filed by May 2, 2008, and that the hearing should be scheduled.

17 On May 1, 2008, Staff filed a Staff Report in this docket recommending approval of the  
18 Applicant's application.

19 On May 8, 2008, Staff filed a Notice of Filing Late Filed Exhibit, stating Exhibit A had been  
20 inadvertently excluded from the Staff Report filed on May 1, 2008.

21 On June 2, 2008, the Railroad filed a Notice of Filing Fully Executed Agreement for  
22 Construction and Funding of Grade Separations in Pinal County.

23 On June 13, 2008, by Procedural Order, the evidentiary hearing in this matter was scheduled  
24 to begin on July 14, 2008.

25 On June 23, 2008, Pinal County filed an additional letter in support of the Applicant's  
26 application.

27 On June 24, 2008, the Railroad filed a request to continue the evidentiary hearing due to  
28 witness unavailability for the July 14, 2008 hearing date. The Railroad requested that the hearing be

1 rescheduled after August 4, 2008.

2 On July 2, 2008, by Procedural Order, the evidentiary hearing was continued to August 14,  
3 2008.

4 On July 22, 2008, the City of Eloy filed a letter in this docket in support of the Railroad's  
5 application.

6 On the same date, the City of Maricopa filed a letter in this docket in support of the Railroad's  
7 application.

8 On August 4, 2008, the City of Casa Grande docketed a letter in support of the application in  
9 this matter.

10 On August 14, 2008, a full evidentiary hearing was held before a duly authorized  
11 Administrative Law Judge of the Commission at the Commission's offices in Phoenix, Arizona. The  
12 Railroad, the City of Casa Grande, and Staff appeared through counsel and presented testimony.  
13 Staff also presented evidence.

14 At the conclusion of the hearing, the matter was taken under advisement pending submission  
15 of a Recommended Opinion and Order to the Commission.

16 \* \* \* \* \*

17 Having considered the entire record herein and being fully advised in the premises, the  
18 Commission finds, concludes, and orders that:

19 **FINDINGS OF FACT**

20 1. On September 7, 2007, the Railroad filed with the Commission an application for  
21 approval to alter four of the Railroad's crossings in Pinal County by adding a second set of mainline  
22 tracks.

23 2. The first two crossings are located in the City of Casa Grande at Montgomery Road,  
24 AAR/DOT No. 741 353H, and at Thornton Road, AAR/DOT No. 741 358S. The third and fourth  
25 crossings are located in Pinal County at Anderson Road, AAR/DOT No. 741 351U, and Ethington  
26 Road AAR/DOT No. 741 357K.

27 3. This application is part of the Railroad's double track project for its "Sunset Route"  
28 across Arizona.

1           4. Pursuant to the Procedural Order issued on November 8, 2007, the Railroad provided a  
2 copy of the Application and of the Procedural Order by certified mail to the City of Casa Grande,  
3 Pinal County, and Arizona Department of Transportation ("ADOT"). The Railroad also published  
4 notice of the Application and hearing in the *Casa Grande Dispatch*, a daily newspaper of general  
5 circulation in the City of Casa Grande, and Pima County, on November 30, 2007, and in the *Florence*  
6 *Reminder and Blade-Tribune*, a weekly publication of general circulation in the City and County, on  
7 December 6, 13, and 20, 2007.

8           5. On August 14, 2008, a full evidentiary hearing was held before a duly authorized  
9 Administrative Law Judge at the Commission's offices in Phoenix, Arizona. The Railroad, City of  
10 Casa Grande, and Staff appeared through counsel and presented testimony. Staff also presented  
11 documentary evidence in the form of the Staff Report.

12           6. The Commission has received letters supporting the Application from the City of Casa  
13 Grande, Pinal County, the City of Maricopa and the City of Eloy. The City of Casa Grande also  
14 expressed support for the Application through testimony at the hearing.

15           7. The City of Casa Grande is the road authority for the Montgomery and Thornton Road  
16 crossings. The Anderson and Ethington Road crossings are under the jurisdiction of Pinal County.

17           **Montgomery Road**

18           8. The Application proposes adding a second mainline track at this crossing, to the north  
19 of the existing mainline track. The Railroad plans to re-profile a portion of the two-lane asphalt road  
20 to meet the new track and to replace the existing incandescent flashing lights with 12-inch LED  
21 flashing lights, gates, bells, and constant warning time circuitry.<sup>2</sup> The Railroad also will add a new  
22 concrete crossing surface and will replace any impacted pavement markings.

23           9. Recent traffic data provided by John Kraft of Pinal County, shows the average daily  
24 traffic ("ADT") for this crossing to be an estimated 156 vehicles per day ("VPD"), with projected  
25 ADT to be 17,315 VPD by 2030. The projected ADT is significantly less than the original projected

26 \_\_\_\_\_  
27 <sup>2</sup> Constant warning time circuitry sends a signal to the at-grade crossing to activate its functioning at the instant it detects  
28 a train's distance and measures the speed of the train to adjust the length of time that the crossing gates have to be closed,  
so that the crossing gates are closed only for the amount of time necessary for the train to move through safely, thereby  
avoiding motorist frustration and possible noncompliance caused by unnecessarily lengthy crossing gate closure.

1 ADT of 56,233 VPD by the year 2025. According to Staff's Report, the current level of service  
2 ("LOS") for Montgomery Road is LOS A, for the two lane road carrying north and south traffic.<sup>3</sup>  
3 Based on the standards of the American Association of State Highway and Transportation Officials  
4 ("AASHTO") the LOS A for Montgomery Road means least congested. The posted speed limit on  
5 Montgomery Road is 50 MPH.

6 10. Staff and Federal Railroad Administration ("FRA") records indicate that one accident  
7 has occurred at the Montgomery crossing, in March 2001, with no injuries or fatalities. According to  
8 Staff's Report, alternative routes to the Montgomery crossing include: Anderson road 4.9 miles to the  
9 west; and Ethington Road located 3.75 miles to the east. Both alternative crossings are at-grade  
10 crossings.

11 11. The estimated cost of the crossing improvements at Montgomery Road total \$264,845,  
12 which includes \$226,245 for signal improvements, and \$38,600 for the crossing surface. The  
13 Railroad will pay the entire cost of these crossing improvements.

14 **Anderson Road**

15 12. The Application proposes adding a second mainline track at this crossing to be located  
16 to the north of the existing mainline track. The Railroad plans to re-profile a portion of the two-lane  
17 rural asphalt road to meet the new track and to replace the existing incandescent flashing lights with  
18 12-inch LED flashing lights, gates, bells, and constant warning time circuitry. In addition, the  
19 Railroad proposes to add a new concrete crossing surface, and replace any impacted pavement  
20 markings.

21 13. Based on traffic data provided to the Railroad by Mr. John Kraft of Pinal County, the  
22 most recent projections for Anderson Road are 1,404 VPD, and ADT of 71,655 vpd by the year 2030.  
23 The current LOS for Anderson Road, based on AASHTO standards, is LOS A, or least congested, for  
24 both northbound and southbound traffic. The posted speed limit on Anderson Road is 50 MPH.

25  
26 <sup>3</sup> According to the Staff Report, the AASHTO Geometric Design of Highways and Roads, 2004, uses LOS to  
27 characterize the operating conditions on a roadway in terms of traffic performance measures related to speed and travel  
28 time, freedom to maneuver, traffic interruptions, and comfort and convenience. LOS ranges from LOS A, least  
congested, to LOS F, most congested.

1        14. Staff and FRA records indicate there have been no accidents, no injuries and no  
2 fatalities at the Anderson Road crossing. There are two alternative routes to the Anderson Road  
3 crossing: Hartman Road 2.44 miles west of Anderson; and Montgomery Road 4.9 miles to the east.

4        15. The estimated cost of the crossing improvements at Anderson Road total \$320,216,  
5 which includes \$281,616 for signal work and \$38,600 for the crossing surface. The Railroad will pay  
6 the entire cost of these crossing improvements.

7        **Ethington Road**

8        16. The Application proposes adding a second mainline track at this crossing to be located  
9 south of the existing mainline track. The Railroad plans to re-profile a portion of the two-lane asphalt  
10 road and to replace the existing incandescent flashing lights, gate mechanisms, bells, and detection  
11 circuitry with the latest industry standard equipment, including 12-inch LED flashing lights, gates,  
12 bells, and constant warning time circuitry. The Railroad will also add a new concrete crossing  
13 surface and replace any impacted pavement markings. Additionally, flashing lights for Cowtown  
14 Road (which runs in a east to west direction and is south of the proposed new main track) will be  
15 installed.

16        17. Based on traffic data provided to the Railroad by Jennifer Crubliiss of HDR  
17 Engineering, the ADT for Ethington Road in 2007 was 299 VPD. The projected ADT for the year  
18 2020 is 38,607 VPD. Staff used the most recent ADT provided by Pinal County in its analysis which  
19 showed ADT to be 2,192 VPD and ADT by the year 2030 to be 698 VPD. The current LOS for  
20 Ethington Road, based on AASHTO standards, is LOS A, or least congested, for both northbound  
21 and southbound traffic. The posted speed limit on Ethington Road is 45 MPH.

22        18. Staff and FRA records indicate that four accidents have occurred at the Ethington  
23 Road crossing, resulting in five fatalities. Staff's Report stated the first fatal accident at the crossing  
24 occurred in April 1983, resulting in two fatalities; the second accident occurred in September 1988,  
25 resulting in three fatalities. The other two accidents occurred in September 1995 and October 1996,  
26 respectively, and resulted in no injuries or fatalities. According to Staff's Report, alternative routes to  
27 the Ethington crossing include: Montgomery road 3.75 miles to the west; and Thornton Road located  
28 2.4 miles to the east. Both alternative crossings are at-grade crossings.



1        19.     The estimated cost of the Ethington crossing improvements total \$257,125, which  
2 includes \$226,245 for signal work and \$30,880 for the crossing surface. The Railroad will pay the  
3 entire cost of these crossing improvements.

4        **Thornton Road**

5        20.     The Application proposes adding a second main track at this crossing, located south of  
6 its existing main track. The Railroad plans to install a new Industry Lead Track and to replace the  
7 existing incandescent flashing lights, gate mechanisms, bells and detection circuitry, with the latest in  
8 industry standard equipment, including 12-inch LED flashing lights, gates, bells and constant  
9 warning time circuitry. The Railroad will also add a new concrete crossing surface and replace any  
10 impacted pavement markings. In addition, the Railroad will add new side lights and a "NO LEFT  
11 TURN" sign on Main Avenue, which runs parallel to the existing track.

12        21.     Based on traffic data provided to the Railroad by Gwen Geraci of the City of Casa  
13 Grande, the estimated ADT projections for Thornton Road are 2,418 VPD. The projected ADT by  
14 the year 2025 is 39,654 VPD. Staff used the most recent ADT provided by Pinal County in its  
15 analysis, which showed ADT to be 7,600 VPD, and ADT by the year 2030 to be 9,767 VPD. The  
16 current LOS for Thornton Road, based on AASHTO standards, is LOS A, or least congested, for both  
17 northbound and southbound traffic. The posted speed limit on Thornton Road is 45 MPH.

18        22.     Staff and FRA records indicate that three accidents have occurred at the Thornton  
19 Road crossing, resulting in two fatalities. Staff's Report states the first fatal accident at the crossing  
20 occurred in May 1983, and had no injuries; the second accident occurred in August 1989, with no  
21 injuries; and the third accident occurred in July 2000, resulting in two fatalities. The crossing has  
22 been equipped with flashing lights, bells and automatic gates since 1974. According to Staff's Report,  
23 alternative routes to the Thornton crossing include: Ethington Road 2.4 miles to the west; and U.S. 84  
24 located 1.5 miles to the east.

25        23.     The estimated cost of the Thornton crossing upgrades total \$396,216, which includes  
26 \$357,616 for signal work and \$38,600 for the crossing surface. The Railroad will pay the entire cost  
27 of these crossing improvements.  
28



1        24.     According to Staff, the improvements recommended for the four crossings are  
2 consistent with safety measures employed at other crossings throughout the state and are in  
3 compliance with Commission rules.

4            **Train Volume and Crossing Usage**

5        25.     According to the Staff Report, data from the Railroad established that an average of 48  
6 trains per day travel through the crossings presently, 46 freight trains and 2 passenger trains, at a  
7 speed of 70 MPH for the freight trains and 79 MPH for the passenger trains. The Railroad states that  
8 train movements through the four crossings require no switching and are all through movements.  
9 Additionally, Amtrak uses these crossings twice per day, three times per week.

10       26.     There are no schools located within four miles of the Anderson Road, Montgomery  
11 Road or Ethington Road crossings. There are four schools located within two miles of the Thornton  
12 Road crossing. The four schools are located in Casa Grande and include: Saguaro Elementary  
13 School; Casa Grande Middle School; Desert Winds High School; and Casa Verde High School. The  
14 City of Maricopa has no school buses traveling over the four crossings. Staff states that the City of  
15 Casa Grande school buses travel across Anderson Road a total of four times per day on school days,  
16 and school buses cross Thornton Road 12 times per day during the school week. Montgomery Road  
17 and Ethington Road are not used for school bus routes.

18       27.     The nearest hospital to the crossings is Casa Grande Hospital, located approximately  
19 four miles from the crossings. There is no evidence that the improvements and upgrades to be made  
20 to the four crossings at issue will adversely impact motorists' ability to reach the hospital.

21       28.     Staff's witness testified that Staff contacted the Transportation Department for Casa  
22 Grande regarding school buses and emergency vehicles traveling over the four crossings and the  
23 Transportation Department did not have any concerns regarding blocked crossings or safety issues at  
24 the four crossings. (Tr. at 60)

25            **Grade Separation/Crossing Elimination**

26       29.     Staff analyzed whether grade separation is warranted at any of the four crossings using  
27 the Federal Highway Administration ("FHWA") *Railroad-Highway Grade Crossing Handbook*  
28

1 ("FHWA Handbook").<sup>4</sup> The FHWA Handbook indicates that grade separation or crossing  
2 elimination should be considered when one or more of nine criteria are met. Staff created a chart,  
3 attached hereto and incorporated herein as Exhibit A, showing the results of Staff's analysis of the  
4 criteria for each of the four crossings.

5 30. Exhibit A shows that only one of the four crossings, Thornton Road, currently meets  
6 any of the nine criteria in the FHWA Handbook, although all four crossings are projected to meet the  
7 criterion for average annual gross tonnage of 300 million or more by the year 2016. This  
8 determination is based on the current annual gross tonnage in excess of 217 million with volume of  
9 46 freight trains per day and projections that there will be twice that number of trains per day (at  
10 lengths of up to 8,000 feet instead of the current length of 6,000 feet) by 2016.

11 31. Staff's witness Mr. David Elack, traffic engineer, employed by both ADOT and the  
12 Corporation Commission, testified that the criteria in the FHWA Handbook are used only for  
13 screening and guideline purposes and are not necessarily determinative of whether a grade separation  
14 is necessary. Therefore, meeting one or more of the criteria does not automatically mean that grade  
15 separation is required. (Tr. at 70) He further testified that even if one or more of the criteria are met,  
16 a judgment call has to be made as to whether a grade separation is needed. (Tr. at 70) The witness  
17 also testified that Staff puts most of its emphasis on the accident frequency at crossings when  
18 evaluating if a grade separation is needed. (Tr. at 71) The witness further stated that the accidents are  
19 evaluated on their severity, when and how frequently they occurred, and what the circumstances were  
20 in each case. (Tr. at 72) If there is a possible need for grade separation, Staff conducts a physical  
21 feasibility and cost benefit analysis. (*Id.*) For the four crossings that are the subject of this docket,  
22 Staff concluded that a physical feasibility or cost benefit analysis was not necessary based on Staff's  
23 conclusions regarding the nine criteria. (*Id.*)

24 32. Staff's witness testified that regarding vehicle delay, the Anderson Road crossing  
25 could experience substantial delays in the future, but at this time grade separation is not needed. (Tr.  
26 at 73, 74) However, the witness stated that because Anderson Road is projected to have a delay time  
27

28 <sup>4</sup> Staff used the revised 2<sup>nd</sup> edition, August 2007.

1 of over 40 hours per day by the year 2030, the County should reevaluate the crossing in the future.  
2 (Tr. at 78, 79)

3 33. Staff does not recommend grade separation at any of the four crossings at issue and  
4 testified that the crossings, with the proposed improvements recommended by Staff, will be safe  
5 without grade separation and are consistent with safety measures taken at similar crossings in  
6 Arizona. (Tr. at 80)

7 34. Mr. Dean Carlson testified on behalf of the Railroad<sup>5</sup> that he believes Staff's analysis  
8 and conclusions regarding the four crossings are an accurate portrayal of the situation at the crossings  
9 and that grade separation is not warranted based on information provided by the railroad and  
10 information on traffic on the roadways. (Tr. at 9) Mr. Carlson further testified that grade separation  
11 does not impact grade crossing safety, but rather grade separations impact the ease and convenience  
12 of the traveling public on the roadway. (Tr. at 14) The witness stated that, in this situation, safety is  
13 addressed through the type of crossing protection that is available and that safety will be improved by  
14 the proposed crossing upgrades. (Tr. at 15, 19)

15 35. Staff concluded that based on the amount of growth in the areas, and the projected  
16 ADT, closure of any of the four crossing is not necessary at this time.

17 36. The Railroad docketed a copy of the fully executed Agreement of Construction and  
18 Funding of Grade Separations ("Agreement") signed by the Railroad, the County and the Cities of  
19 Casa Grande, Eloy, and Maricopa, to share the cost of construction of the next four grade separations  
20 over or under the Gila Subdivision main line in Pinal County. As part of the Agreement, the Railroad  
21 will contribute \$35 million towards construction costs of four crossings which will be grade  
22 separated. The Agreement states that the identity of the four grade separations shall be determined by  
23 the Agencies.<sup>6</sup> The Railroad and the Agencies also agree to the closing of at least one public grade  
24 crossing for each grade separation to be constructed, in order for the grade separation to qualify for  
25 the Railroad contribution. Further, the Agreement states that the proposed closed public crossing may  
26

27 <sup>5</sup> Mr. Carlson retired from the FHWA, after 36 years of service, as its Executive Director. (Tr. at 7, 8.) During his  
28 tenure at the FHWA, Mr. Carlson also served as the Director of Engineering and the Director of the Office of Highway  
Safety. (*Id.*) Mr. Carlson also served as the Secretary of Transportation for the State of Kansas for eight years. (*Id.*)

<sup>6</sup> The Agencies are Pinal County, and the Cities of Maricopa, Casa Grande and Eloy.

1 be the grade crossing replaced by the grade separation, or a grade crossing at another location within  
2 the Gila Subdivision as designated by the Agencies. The Agreement requires that an application to  
3 close a grade crossing be submitted to the Commission when the Agency files its application for  
4 grade separation, and further provides that the grade separation will not be funded by the Railroad if  
5 the Commission denies closure of the at-grade crossing.

6 37. The Commission wishes to make clear it is not bound by and not approving the  
7 Agreement.

#### 8 Staff's Recommendations

9 38. Staff recommends that the Application be approved. Based on its review of all  
10 applicable data, Staff believes that the proposed crossing upgrades are reasonable, in the public  
11 interest, and consistent with other similar at-grade crossings in the State.

12 39. Staff's recommendations are reasonable and appropriate and should be adopted.

#### 13 CONCLUSIONS OF LAW

14 1. The Commission has jurisdiction over the Railroad and over the subject matter of the  
15 Application pursuant to Article XV of the Arizona Constitution and A.R.S. §§ 40-336, 40-337 and  
16 40-337.01.

17 2. Notice of the Application was provided in accordance with the law.

18 3. Alteration of the crossings as proposed in the Application and as recommended by  
19 Staff is necessary for the public's convenience and safety.

20 4. Pursuant to A.R.S. §§ 40-336 and 40-337, the Application should be approved as  
21 recommended by Staff.

22 5. After alteration of the crossings, the Railroad should maintain the crossings in  
23 accordance with A.A.C. R14-5-104.

#### 24 ORDER

25 IT IS THEREFORE ORDERED that the Union Pacific Railroad Company's Application, is  
26 hereby approved.

27 IT IS FURTHER ORDERED that the Union Pacific Railroad Company shall notify the  
28 Commission, in writing, within ten days of both the commencement and the completion of the

crossing alterations, pursuant to A.A.C. R14-5-104.

IT IS FURTHER ORDERED that the Union Pacific Railroad Company shall maintain the crossings at Montgomery, Thornton, Anderson and Ethington Roads, in the City of Casa Grande, Pinal County, Arizona in compliance with A.A.C. R14-5-104.

IT IS FURTHER ORDERED that the Union Pacific Railroad Company shall file, every five years from the effective date of this Decision, with the Commission's Docket Control, as a compliance item in this docket, an update on the average daily traffic count at each of the four crossings described in the Application. The updated average daily traffic count shall be obtained from the road authority or a contractor hired by the Railroad.

IT IS FURTHER ORDERED that this Decision shall become effective immediately.

BY ORDER OF THE ARIZONA CORPORATION COMMISSION.

CHAIRMAN

COMMISSIONER

COMMISSIONER

COMMISSIONER

COMMISSIONER

IN WITNESS WHEREOF, I, BRIAN C. McNEIL, Executive Director of the Arizona Corporation Commission, have hereunto set my hand and caused the official seal of the Commission to be affixed at the Capitol, in the City of Phoenix, this 17<sup>th</sup> day of Dec., 2008.

BRIAN C. McNEIL  
EXECUTIVE DIRECTOR

DISSENT \_\_\_\_\_

DISSENT \_\_\_\_\_

SERVICE LIST FOR: UNION PACIFIC RAILROAD COMPANY

DOCKET NO.: RR-03639A-07-0518

Aziz Aman, Manager of Special Projects  
UNION PACIFIC RAILROAD COMPANY  
1301 East Harrison Street  
Phoenix, Arizona 85034-2336

Anthony J. Hancock  
Terrance L. Sims  
BEAUGUREAU, ZUKOWSKI, HANCOCK,  
STOLL & SCHWARTZ, P.C.  
302 East Coronado  
Phoenix, Arizona 85004  
Attorneys for Union Pacific Railroad Co.

Brett D. Wallace, City Attorney  
CITY OF CASA GRANDE  
510 East Florence Blvd.  
Casa Grande, Arizona 85222

J. Blaha, Public Works Director  
CITY OF CASA GRANDE  
510 East Florence Blvd.  
Casa Grande, Arizona 85222

Gregory Stanley, County Engineer  
PINAL COUNTY  
P.O. Box 727  
31 North Pinal Street, Bldg. F  
Florence, Arizona 85232

Bruce Vana, P.E., Engineer-Manager  
Utility & Railroad Engineering Section  
ARIZONA DEPARTMENT OF TRANSPORTATION  
205 South 17<sup>th</sup> Avenue, M/D 618E  
Phoenix, Arizona 85007

Brian Lehman, Chief  
Railroad Safety Section  
ARIZONA CORPORATION COMMISSION  
1200 West Washington Street  
Phoenix, Arizona 85007

Janice Alward, Chief Counsel  
Legal Division  
ARIZONA CORPORATION COMMISSION  
1200 West Washington Street  
Phoenix, Arizona 85007

## EXHIBIT A

FHWA - GRADE SEPARATION GUIDELINES					
Highway-rail grade crossings should be considered for grade separation or otherwise eliminated across the railroad right of way whenever one or more of the following conditions exist:					
		Anderson	Montgomery	Ethington	Thornton
The highway is a part of the designated Interstate Highway System	Crossing Currently meets the criteria	NO	NO	NO	NO
	Crossing meets the criteria by 2030	NO	NO	NO	NO
The highway is otherwise designed to have full controlled access	Crossing Currently meets the criteria	NO	NO	NO	NO
	Crossing meets the criteria by 2030	NO	NO	NO	NO
The posted highway speed equals or exceeds 70 mph	Crossing Currently meets the criteria	NO	NO	NO	NO
	Crossing meets the criteria by 2030	NO	NO	NO	NO
AADT exceeds 100,000 in urban areas or 50,000 in rural areas	Crossing Currently meets the criteria	NO	NO	NO	NO
	Crossing meets the criteria by 2030 <sup>1</sup>	YES	NO	NO	NO
Maximum authorized train speed exceeds 110 mph	Crossing Currently meets the criteria	NO	NO	NO	NO
	Crossing meets the criteria by 2030	NO	NO	NO	NO
An average of 150 or more trains per day or 300 million gross tons/year	Crossing Currently meets the criteria	NO	NO	NO	NO
	Crossing meets the criteria by 2030 <sup>2</sup>	YES	YES	YES	YES
Crossing exposure (trains/day x AADT) exceeds 1M in urban or 250k in rural; or passenger train crossing exposure exceeds 800k in urban or 200k in rural	Crossing Currently meets the criteria <sup>3</sup>	NO	NO	NO	YES
	Crossing meets the criteria by 2030 <sup>4</sup>	YES	YES	NO	YES
Expected accident frequency for active devices with gates, as calculated by the US DOT Accident Prediction Formula including five-year accident history, exceeds 0.5	Crossing Currently meets the criteria	NO	NO	NO	NO
	Crossing meets the criteria by 2030	Unknown	Unknown	Unknown	Unknown
Vehicle delay exceeds 40 vehicle hours per day	Crossing Currently meets the criteria	NO	NO	NO	NO
	Crossing meets the criteria by 2030 <sup>5</sup>	YES	NO	NO	NO

<sup>1</sup> This table utilizes the most recent projected ADT data as follows: Anderson - 71,655 (2030), Montgomery - 17,315 (2030), Ethington - 698 (2030) and Thornton - 9,767 (2030).

<sup>2</sup> The Railroad is projected to exceed 300 million gross tons as of 2016. This projection is based on the fact that the Railroad is currently exceeding 217 million gross tons with 46 trains per day and is projected to run twice the number of trains (at lengths of up to 8,000 feet instead of the current length of 6,000 feet) by 2016.

<sup>3</sup> The current crossing exposure for Thornton Road is 364,800 (based on 48 trains per day and 7,600 vpd).

<sup>4</sup> The projected crossing exposures utilizing the most recent projected VPD data are as follows: Anderson - 6.0 million, Montgomery - 1.5 Million, Ethington - 58,632 and Thornton - 820,428.

<sup>5</sup> Projected vehicle delay per day utilizing the most recent projected VPD data are as follows: Anderson - 385.4 hours, Montgomery - 29.5 hours, Ethington - 0.6 hours, Thornton - 8.7 hours.